Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Diclofenac (Sodium)

Catalog No: tcsc2355

Available Sizes

Size: 5g

Specifications

CAS No:
15307-79-6

Formula:
$C_{14}H_{10}Cl_2NNaO_2$

Pathway:
Immunology/Inflammation

Target:
COX

Purity / Grade:
>98%

Solubility:
H2O : 10 mg/mL (31.43 mM; ultrasonic and warming and heat to 60°C)

Alternative Names:
GP 45840

Observed Molecular Weight:
318.13

Product Description

Diclofenac Sodium (GP 45840) is a potent and nonselective anti-inflammatory agent, acts as a **COX** inhibitor, with **IC_{50}**s of 4 nM, 1.3 nM for human COX-1 and COX-2 in CHO cells, and 5.1, 0.84 μM for ovine COX-1 and COX-2, respectively.

IC50 & Target: IC50: 4 nM (Human COX-1, in CHO cells), 1.3 nM (Human COX-2, in CHO cells)[1], 5.1 μM (Ovine COX-1), 0.84 μM (Ovine COX-2)[2]

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In Vitro: Diclofenac Sodium (GP 45840) is a potent COX inhibitor, with IC_{50}s of 4 nM and 1.3 nM for human COX-1 and COX-2 in the CHO cells, respectively. Diclofenac effectively blocks COX-1 mediated prostanoid production from U937 cell microsomes, with an IC_{50} of 7 ± 3 nM[1]. Diclofenac Sodium exihibits inhibition on COX-1 and COX-2 enzyme with IC_{50}s of 5.1 and 0.84 μM, respectively[2].

In Vivo: Diclofenac (3 mg/kg, b.i.d., for 5 days) significantly increases faecal ^{51}Cr excretion in rats, and such effect is also observed in squirrel monkeys after administrated of 1 mg/kg twice daily for 4 days[1]. Diclofenac (10 mg/kg) shows anti-inflammatory activity in mice[2]. Diclofenac (10 mg/kg) decreases oxidized low-densitylipoprotein (Ox-LDL), but shows no effects on the kinetics parameters of catalase and glutathione peroxidase via intramuscularly injection into rats[3].